SPECIFICATIONS (All Specs Are Approx.)

Model 702	Mill Size Wheel Dia / Ft	Stroke Inches Long	Stroke Inches Short	No. of Sails	Back Geared	Max. Strokes Per Min.	A Wind Velocity	Max. Wheel RPM	Topper Suggested Oil Capacity
X	6	5"	3"	18	3.91-1	32	15-18 mph	125	1 qt.
A	8	7 1/8"	5 1/2"	18	3.29-1	32	15-18 mph	105	2 qt.
B	10	9 1/4"	7 1/4"	18	3.29-1	26	15-18 mph	85	1 gal.
D	12	11 1/4"	8 1/4"	18	3.50-1	21	18-20 mph	73	2 gal.
E	14	13 1/2"	9 3/4"	18	3.43-1	18	18-20 mph	62	3 gal.
F	16	14 7/8"	11 3/8"	18	3.29-1	16	18-20 mph	53	4 gal.

PUMPING CAPACITIES

Size of Cyl. Inches	*Capacity per Hour. Gallons		Elevation in Feet to Which Water Can Be Raised SIZE OF AERMOTOR					
	6-ft.	8-16 ft.	6-ft.	8-ft.	10-ft.	12-ft.	14-ft.	16-ft.
1 3/4	105	150	130	185	280	420	600	1000
1 7/8	125	180	120	175	260	390	560	920
2	130	190	95	140	215	320	460	750
2 1/4	180	260	77	112	170	250	360	590
1/2	225	325	65	94	140	210	300	490
3/4	265	385	56	80	120	180	260	425
3	320	470	47	68	100	155	220	360
3 1/4	–	550	–	–	88	130	185	305
3 1/2	440	640	35	50	76	115	160	265
3 3/4	–	730	–	–	65	98	143	230
4	570	830	27	37	58	86	125	200
4 1/4	–	940	–	–	51	76	110	180
4 1/2	725	1050	21	30	46	68	98	160
4 3/4	–	1170	–	–	–	61	81	140
5	900	1300	17	25	37	55	80	130
5 3/4	–	1700	–	–	–	40	60	100
6	–	1875	–	17	25	38	55	85
7	–	2550	–	–	19	28	41	65
8	–	3300	–	–	14	22	31	50

Capacities are approximate and based on the mill operating in winds as shown below. The short stroke increases pumping elevation one-third and reduces pumping capacity one-fouth.

In 12MPH winds, capacity is reduced about 20%; in 10 MPH winds, about 38%. If prevailing winds are low, use of a cylinder smaller than shown will permit your mill to operate in lower winds.

Pumping Capacities of Aermotors

Under ordinary conditions the actual quantity of water delivered will fall considerably below the theoretical capacity. Where the prevailing winds are light or variable, where the wind usually blows only a few hours each day, where the wind exposure is poor, or when it is desired to have the wheel run at less than its maximum speed, these conditions should be taken into consideration in determining the size of Aermotor needed to supply the required quantity of water.

With the vane spring set for maximum tension the 6-foot and 8-foot Aermotors are running at full speed will make about 32 strokes of the pump per minute; the 10-foot, 26 strokes; the 12-foot, 21 strokes; the 14-foot, 18 strokes and the 16-foot, 16 strokes. The smaller mills will attain this speed in winds blowing steadily from 15 to 18 miles per hour, and the larger ones in winds from 18 to 20 miles per hour when loaded according to the table.

The tension of the vane spring can be adjusted so that the maximum number of strokes will be about 2/3 of the figures given above, or any number of strokes between the two limits which may be desired.

Capacities shown in the "Aermotor Pumping Capacity" table are approximate, based on the mill set on the long stroke, operating in a 15 to 20 mile-an-hour wind. The short stroke increases elevation by one-third and reduces pump capacity one-fourth.

If wind velocity is 12-miles per hour, capacity is reduced approximately 22%; in 10-mile per hour wind, capacity reduces approximately 37%.

The pumping capacity of all Aermotors from 8-feet to 16-feet is the same with cylinders of the same diameter. This is because the length of stroke is increased in proportion to the size of the wheel. With the 6-foot mill, which is back-geared more than the other sizes and has a stroke of only 5 1/2 inches, the quantity of water delivered is about 30% less than for the other sizes. The reduction in capacity for any particular size of cylinder is compensated for in the ability of the 6-foot mill to raise water to a greater elevation than its true proportion. Pumps and cylinders used with the various sizes of mills should be capable of giving a clear stroke equal in inches to the diameter of the windwheel in feet; i.e., 8-inches for 8-foot, 10-inches for 10-foot, etc.

The capacities shown in the "pumping capacity" table are based on the long stroke of the mills. When the short stroke is used, the capacity should be reduced by about 25%. However, the same quantity of water may be obtained by using a cylinder of larger diameter so as to increase its capacity 25%. We do not advise using a windmill on the short stroke except where the pump already in the well has a cylinder which is so large as to overload the mill if operated on the long stroke.

The loads recommended in the table are for moderate wind conditions. In localities where the winds are strong, these loads may be considerable increased. To obtain the best results in light winds, the table should be closely followed. A windmill should stand at least 15-feet above all obstructions within 400-feet.

Never use pipe smaller than the sizes for which our cylinders are fitted. For wells more than 100-feet deep, the best results are obtained by using Deep Well Cylinders with pipe larger than the cylinder so that the plunger can be drawn up through it.

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